Natural Heritage & Endangered Species Program
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Fogg's Goosefoot

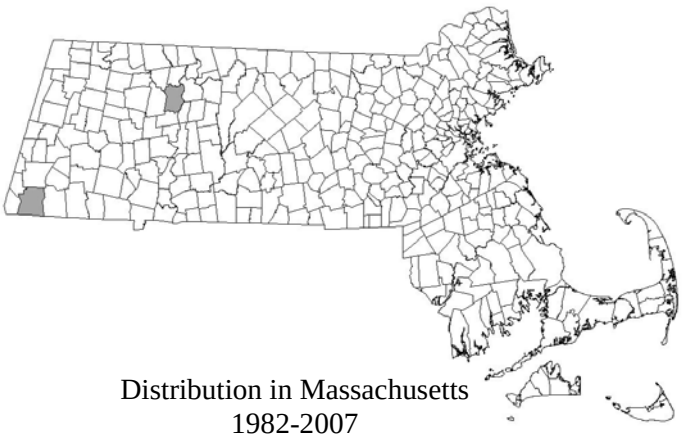
Chenopodium foggii

State Status: **Endangered**
Federal Status: None

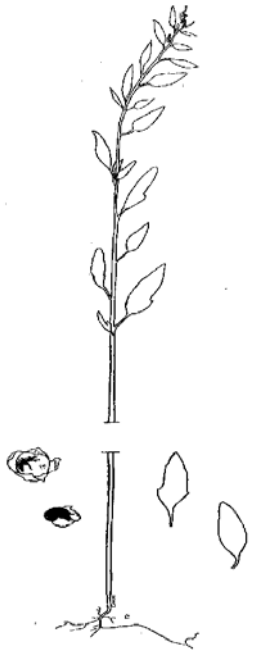
Description: Fogg's Goosefoot (*Chenopodium foggii*) is a globally rare annual herb of the goosefoot family (Chenopodiaceae) known to inhabit open, dry habitats. It has alternate, narrow, egg-shaped leaves and spikes of very small whitish flowers.

Aids to identification: Fogg's Goosefoot grows 8 to 40 inches (10–100 cm) in height, with alternately-arranged narrow egg-shaped leaves that have one to a few variable teeth near the base. The leaves are 0.4 to 1.5 inches (1–4 cm) long and 0.2 to 0.7 inch (5–18 mm) wide. The flowers are very small, with five whitish, mealy, keeled sepals born on short spikes. The sepals mostly conceal the fruit, and they mature uniformly. The fruit, a utricle, is small, thin-walled, one-seeded, and inflated, with small spines (the fruit is echinate), and an outer layer that separates easily from the seed.

Similar species: Fogg's Goosefoot resembles other goosefoot species of Massachusetts, thus a technical key should be consulted to confirm identification. One very similar species, White Pigweed (*C. pratericola*) differs subtly in leaf characteristics; White Pigweed has leaves that are linear to lanceolate and less than 0.3 inch (0.7–0.9 cm) in width, whereas the leaves of Fogg's Goosefoot are narrow-ovate and greater than 0.4 inch (1 cm) wide.



Distribution in Massachusetts
1982-2007
Based on records in Natural Heritage Database



Wahl, H.A. 1952–1953. A preliminary study of the genus Chenopodium in North America. *Bartonia* 27: 1–46.

Habitat in Massachusetts: In Massachusetts, Fogg's Goosefoot inhabits dry soils of open woodlands, edges, and sunny rocky outcrops, over circumneutral or calcareous bedrock. Associated plant species include Wild Columbine (*Aquilegia canadensis*), Black Raspberry (*Rubus occidentalis*), Little Bluestem (*Schizachyrium scoparium*), Cliff-fern (*Woodsia obtusa*), Lace-grass (*Eragrostis capillaris*), and American Pennyroyal (*Hedeoma pulegioides*).

Threats: Fogg's Goosefoot requires partial sun exposure. Therefore, forest maturation and canopy closure, resulting from a lack of natural or anthropogenic disturbance, often casts too much shade. Also, invasive exotic plant species may over-shade or out-compete Fogg's Goosefoot at some sites. Fogg's Goosefoot habitat that is proximate to recreational trails may be threatened by trampling and erosion, or by damage from trail maintenance activities.

Fruiting time in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							■	■	■		

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Range: The range of Fogg's Goosefoot is from Ontario and Quebec south to Massachusetts, New York, and Pennsylvania, with disjunct populations in the Midwest, Virginia, and North Carolina. It is also rare in Maine, New Hampshire, Pennsylvania, Vermont, Ontario, and Quebec

Population status in Massachusetts: Fogg's Goosefoot is listed under the Massachusetts Endangered Species Act as Endangered. All listed species are legally protected from killing, collection, possession, or sale, and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Fogg's Goosefoot is currently known from Berkshire and Franklin Counties, and is historically known from Hampden County.

Management recommendations: As with many rare species, the exact management needs of Fogg's Goosefoot are not known. Sites should be monitored for over-shading caused by habitat succession, and for invasive plant species. Habitat sites that do not receive enough light can be managed with canopy thinning or prescribed burning. If trampling or erosion are threats in recreational areas, trails can be stabilized or re-routed. To avoid inadvertent harm to rare plants, all active management of rare plant populations (including invasive species removal) should be planned in consultation with the Massachusetts Natural Heritage &Endangered Species Program.

Updated June 2007